The Math Colloquium  
Department of Mathematics  
San José State University

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*Sums of harmonic integers*  

**February 2, 2011, MH320**

**Abstract:** Let us say that an integer is *harmonic* if its absolute value is a power of 2 times a power of 3. Can 4985 be written as the sum of three harmonic integers? (The question would be much easier to answer if we didn’t allow negative summands!)

I will explain the significance of this problem, trace its origin back to the 14th century, and give a simple solution. I’ll also describe some other recent results about sums of harmonic integers.

**Background:** Students should be comfortable with computations using the integers modulo $n$. It might also be helpful to know what a group is.

**About the speaker:** Everett Howe received his Ph.D. from UC Berkeley in 1993. After a post-doctoral position at the University of Michigan, he began working as a researcher at the Center for Communications Research in San Diego, where he remains to this day.

**Snacks in MH331B at 2:30 pm**  
**Talk starts at 3 pm**

For more information, see our full schedule at:

[http://www.math.sjsu.edu/~hsu/colloq/](http://www.math.sjsu.edu/~hsu/colloq/)